

ABSTRACT OF DISCLOSURE

An apparatus and method thereof to correct a reference voltage, V_{ref} , include a first digital device and a second digital device to input/output digital data via a bus, an adjustable resistor providing a main supply voltage V_{DD} , a fixed resistor, wherein the adjustable resistor and the fixed resistor generate a V_{ref} correction by dividing the main supply voltage V_{DD} . A V_{ref} setup selecting part of the apparatus and method selects the V_{ref} correction and a V_{ref} controller changes a resistance value of the adjustable resistor according to a selection of the V_{ref} correction through the V_{ref} setup selecting part, determines an optimum resistance value of the adjustable resistor, and outputs an optimum V_{ref} correction.